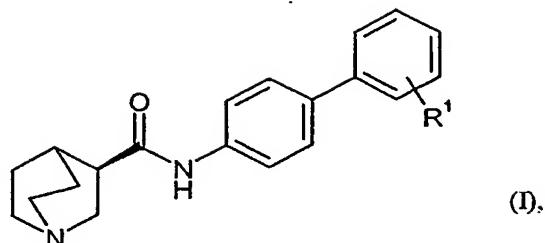


Claims

1. A compound of the formula



5 in which

R¹ is a group of the formula -NR²-CO-NR³R⁴, -NR²-CO-CO-OR⁵, -NH-SO₂R⁶, -SO₂NHR⁷ or -NH-CO-R⁸, where

R² is hydrogen or C₁-C₆-alkyl,

10 R³ and R⁴ are independently of one another hydrogen, C₁-C₆-alkyl, C₃-C₈-cycloalkyl or phenyl, which is optionally substituted by up to 3 radicals independently of one another selected from the group of halogen, cyano, C₁-C₆-alkyl, C₁-C₆-alkoxy, trifluoromethyl and trifluoromethoxy, or

15 R³ and R⁴ together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl,

R⁵ is hydrogen, C₁-C₆-alkyl, C₃-C₈-cycloalkyl or aryl, where C₁-C₆-alkyl is optionally substituted by aryl,

20 R⁶ is C₁-C₆-alkyl, C₃-C₈-cycloalkyl, 5- to 6-membered heterocyclyl, aryl or 5- to 6-membered heteroaryl, where C₁-C₆-alkyl is optionally substituted by aryl,

R⁷ is hydrogen, C₁-C₆-alkyl, C₃-C₈-cycloalkyl, 5- to 6-membered heterocyclyl, aryl or 5- to 6-membered heteroaryl, where C₁-C₆-alkyl is optionally substituted by aryl,

25 R⁸ is C₃-C₈-cycloalkyl, C₁-C₆-alkyl or phenyl, where C₁-C₆-alkyl is substituted by C₁-C₆-alkoxy and phenyl by 1 to 3 radicals independently of one another selected

from the group of halogen, cyano, C₁-C₆-alkyl, C₁-C₆-alkoxy, trifluoromethyl and trifluoromethoxy,
and the salts, solvates and solvates of the salts thereof.

5 2. The compound as claimed in claim 1, where

R¹ is a group of the formula -NR²-CO-NR³R⁴, -NR²-CO-CO-OR⁵, -NH-SO₂R⁶, -SO₂NHR⁷ or -NH-CO-R⁸, where

R² is hydrogen or C₁-C₄-alkyl,

10 R³ and R⁴ are independently of one another hydrogen, C₁-C₄-alkyl, C₃-C₆-cycloalkyl or phenyl, which is optionally substituted by up to 2 radicals independently of one another selected from the group of fluorine, chlorine, bromine, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, trifluoromethyl and trifluoromethoxy, or

15 R³ and R⁴ together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl,

R⁵ is hydrogen, C₁-C₄-alkyl, C₃-C₆-cycloalkyl, or aryl, where C₁-C₄-alkyl is optionally substituted by aryl,

20 R⁶ is C₁-C₄-alkyl, C₃-C₆-cycloalkyl, 5- to 6-membered heterocyclyl, aryl or 5- to 6-membered heteroaryl, where C₁-C₄-alkyl is optionally substituted by aryl,

25 R⁷ is hydrogen, C₁-C₄-alkyl, C₃-C₆-cycloalkyl, 5- to 6-membered heterocyclyl, aryl or 5- to 6-membered heteroaryl, where C₁-C₄-alkyl is optionally substituted by aryl,

30 R⁸ is C₃-C₆-cycloalkyl, C₁-C₄-alkyl or phenyl, where C₁-C₄-alkyl is substituted by C₁-C₄-alkoxy and phenyl by 1 to 2 radicals independently of one another selected from the group of fluorine, chlorine, bromine, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, trifluoromethyl and trifluoromethoxy,

and the salts, solvates and solvates of the salts thereof.

3. The compound as claimed in either of claims 1 and 2, where

R^1 is a group of the formula $-NH-CO-NHR^3$, $-NH-CO-CO-OH$, $-NH-SO_2R^6$, $-SO_2NHR^7$ or $-NH-CO-R^8$, where

5 R^3 is hydrogen, C_1-C_4 -alkyl, C_5-C_6 -cycloalkyl or phenyl, which is optionally substituted by C_1-C_4 -alkoxy,

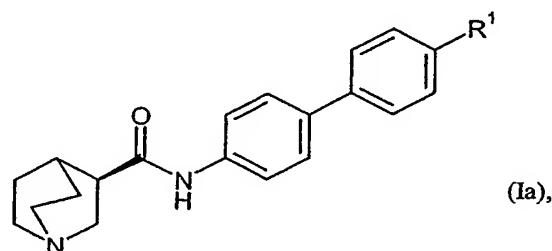
10 R^6 is C_1-C_4 -alkyl or phenyl, where C_1-C_4 -alkyl is optionally substituted by phenyl,

R^7 is hydrogen or C_1-C_4 -alkyl which is optionally substituted by phenyl,

15 R^8 is C_5-C_6 -cycloalkyl, methoxymethyl or phenyl which is substituted by fluorine or chlorine,

and the salts, solvates and solvates of the salts thereof.

4. The compound as claimed in any of claims 1, 2 or 3, of the formula



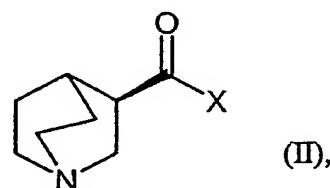
15

in which R^1 has the meanings indicated in claim 1, and the salts, solvates and solvates of the salts thereof.

5. A process for preparing compounds as claimed in claims 1 to 4, characterized in

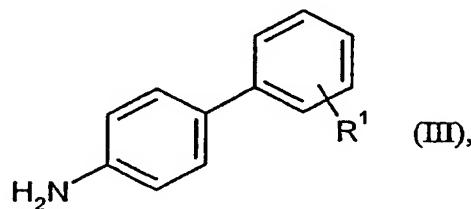
20 that

[A] compounds of the formula



in which

X is hydroxy or a suitable leaving group such as, for example, chlorine or pentafluorophenoxy,
are reacted with a compound of the formula



5

in which

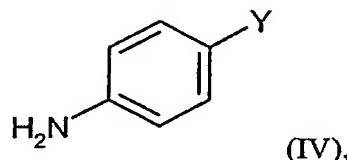
R¹ has the meanings indicated in claim 1,

in an inert solvent, where appropriate in the presence of a condensing agent and where appropriate in the presence of a base,

or

10

[B] compounds of the formula (II) initially are reacted with a compound of the formula

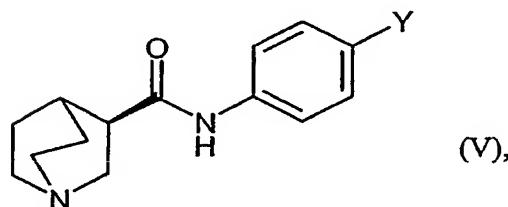


in which

Y is a suitable leaving group such as, for example, triflate or halogen, preferably bromine or iodine,

15

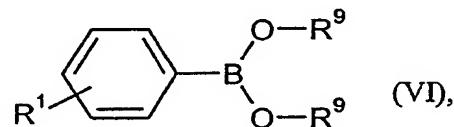
where appropriate in an inert solvent, where appropriate in the presence of a condensing agent and where appropriate in the presence of a base to give compounds of the formula



20

in which

Y has the abovementioned meanings,
and the latter are then reacted in a coupling reaction with compounds of
the formula



5 in which

R¹ has the meanings indicated in claim 1, and

R⁹ is hydrogen or methyl, or the two radicals together form a
CH₂CH₂ or C(CH₃)₂-C(CH₃)₂ bridge,

10 in an inert solvent in the presence of a suitable catalyst and in the
presence of a base,

and the resulting compounds of the formula I are reacted where appropriate with
the appropriate (i) solvents and/or (ii) bases or acids to give the solvates, salts
and/or solvates of the salts thereof.

15 6. The compound as claimed in any of claims 1 to 4 for the treatment and/or
prophylaxis of diseases.

7. A medicament comprising at least one of the compounds as claimed in any of
claims 1 to 4 mixed with at least one pharmaceutically acceptable, essentially
nontoxic carrier or excipient.

20 25

8. The use of compounds as claimed in any of claims 1 to 4 for producing a
medicament for improving perception, concentration, learning and/or
memory.

9. The use of compounds as claimed in any of claims 1 to 4 for producing a
medicament for the treatment and/or prophylaxis of impairments of
perception, concentration, learning and/or memory.

10. A method for the treatment and/or prophylaxis of impairments of perception, concentration, learning and/or memory in humans and animals by administering an effective amount of at least one compound as claimed in any of claims 1 to 4.

5

11. The medicament as claimed in claim 7 for the treatment and/or prophylaxis of impairments of perception, concentration, learning and/or memory.